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06/28/2001

Pranil Ram

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MR. PRANIL RAM

c/o APT. 313

6390 WILLINGDON AVE

BURNABY, BC V5H2V5

CANADA

EXAMINER

MERCHANT, SHAHID R

ART UNIT

PAPER NUMBER

3694

| SHORTENED STATUTORY PERIOD OF RESPONSE | MAIL DATE | DELIVERY MODE |
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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

09/892,891

**Applicant(s)**

RAM ET AL.

**Examiner**

Shahid R. Merchant

**Art Unit**

3694

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 9/25/2001- Preliminary Amendment.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>12/19/2005</u> . | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

1. Per applicants Preliminary Amendment filed September 25, 2001, claims 21-44 have been deleted without prejudice. For examining purposes, claims 1-20 have been examined.

#### ***Priority***

2. Examiner has given consideration to prior art, U.S. Patent No. 6,766,304 that was filed on June 27, 2001. U.S. Patent No. 6,766,304 is a divisional application of application 09/590,692 filed on June 9, 2000 which claims benefit of provisional application 60/186,322 was filed on March 2, 2000. For examining purposes of this application, the effective filing date for U.S. Patent No. 6,766,304 will be March 2, 2000.
3. Examiner has given consideration to prior art, U.S. Patent Application 2002/0007335 that was filed on March 22, 2001. U.S. Patent Application 2002/0007335 claims benefit of provisional application 60/191,222 which was filed on March 22, 2000. For examining purposes of this application, the effective filing date for U.S. Patent Application 2002/0007335 will be March 22, 2000.

#### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 5-11, 13, 14 and 20 rejected under 35 U.S.C. 102(e) as being anticipated by Kemp, II et al., U.S. Patent No. 6,766,304 (see attached PTO-892, Ref. A).

6. As per claim 1, Kemp II teaches an interactive graphical front end trading system for use in trading securities through established security trading markets, in real time, where the system comprises a grid based graphical user interface for use by any trader; said system being adapted for communication between any trader and any of a plurality of market trading participants through communication channels between a computer at said trader's location middleware between said trader and any market trading participant, and backend systems used by any market trading participants (see abstract, column 5, lines 29-31, column 3, lines 15-24 and Figure 1);

wherein said graphical user interface for each trader is adapted to receive market data through said communications channels and said middleware from a plurality of market trading participants, in real time; and wherein any trader may select any particular security or group of securities for which data are electively required, at any instant in time (see Figure 3, column 5, lines 29-31 and column 3, lines 15-24);

wherein said graphical user interface comprises processor means that functions to send transaction instructions through a communication channel to a backend system

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of any market trading participant, and to receive messages back from any market trading participant through said middleware and said communication channels; and wherein said graphical user interface further comprises further processor means that functions to receive, process, and present said messages, and market data, to any trader (see column 4, lines 65-66 and column 8, lines 16-36);

wherein said messages and market data comprise information chosen from the group of information data consisting of: order data as to buy, sell, or other trading orders existing at that instant in time for any selected security or group of securities, quote data as to bid and ask prices for any security or group of security, volume data as to trading activity of any security or group of securities, index data, market information as to news or charts concerning any security or group of securities, and combinations thereof (see column 7, lines 54-64 and column 8, lines 16-36);

wherein said messages and market data are transmitted to said grid based graphical user interface from said backend systems of any market trading participant in computer-readable electronic format (see column 5, lines 29-31);

wherein upon receipt of said market data, said graphical user interface for any trader applies processor means that function to transform said market data, at any instant in time, into a graphical representation for display on a display device, which display comprises at least one grid comprising a plurality of cells (see Figure 3 and column 7, lines 37-53);

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wherein any selected cell displays specific market data, and the market data displayed in any one cell differs from the market data displayed in any other cell (see Figure 3 and column 7, lines 37-53);

wherein said plurality of cells on said grid is presented in a grid display chosen from the group consisting of a plurality of rows and at least one column, a plurality of columns and at least one row, and a plurality of rows and a plurality of columns (see Figure 3 and column 7, lines 37-53);

wherein a plurality of rows or a plurality of columns has an axis along which each selected cell indicates a price or price range for which market data exists, and wherein a second axis is established for at least one column or row is indicative of a specific criterion chosen from a plurality of selected criteria within which said market data may be categorized as to price or price range (see Figure 3 and column 7, lines 37-64);

wherein any selected cell of said plurality of cells represents specific market data chosen from the group of data consisting of buy, sell, or other trading order for any security or group of securities, quote data as to bid and ask prices for any security or group of securities (see column 7, lines 54-64);

wherein any selected cell is electively linked to a selected parameter or group of parameters associated with said specific market data (see column 8, lines 36-67 and column 9, lines 1-3);

wherein said graphical user interface grid display further comprises at least one further data entry activator chosen from the group consisting of graphical buttons,

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transaction icons, data entry fields, and combination thereof (see Figure 3, items 1014, 1015, 1017 and 1018); and

wherein any trader can execute or alter any trading order for a selected security or group of securities being displayed at that instant in time by an action chosen from the group of actions consisting of: clicking on a selected cell, moving a cursor or pointing a device over a selected cell and dragging that cell to said at least one data entry activator, dragging said at least one data entry activator over a selected cell, right clicking on a selected cell so as to reveal any selected parameters electively linked thereto and choosing a selected parameter, and combinations thereof (see column 8, lines 50, 54 and 67).

7. As per claim 2, Kemp II teaches the system of claim 1 as described above. Kemp II further teaches wherein any selected cell in said plurality of cells is assigned specific visual or graphical attributes or properties chosen from the group of graphical or visual attribution or properties consisting of: color, border, label indicator, graphic overlay, text overlay, and combinations thereof (see Figure 3);

wherein the specific attribute or property assigned to any selected cell is a function of the specific market data associated therewith (see column 8, lines 47-53).

8. As per claim 5, Kemp II teaches the system of claim 1 as described above. Kemp II further teaches wherein said trading data is presented in a plurality of rows and a plurality of columns (see Figure 3); and

wherein each selected cell, and each trading order transaction, is linked to a respective one of a set of GUI objects which are included in said software at said graphical user interface at each said trader (see Figure 3, column 8, lines 17-36).

9. As per claim 6, Kemp II teaches the system of claim 1 as described above.

Kemp II further teaches wherein said system further comprises protocol translators for translating the data and instructions sent over any communications channel into a language which is understood by a computer at any trader's location, or at any market trading participant's location (see column 4, lines 32-39).

10. As per claim 7, Kemp II teaches the system of claim 1 as described above.

Kemp II further teaches wherein said system server has logical components therein to execute any trading order instruction issued thereto from a trader, or from a market trading participant (see column 4, lines 1-8).

11. As per claim 8, Kemp II teaches the system of claim 1 as described above.

Kemp II further teaches wherein said graphical user interface for any trader has a local database relevant to that trader (see column 4, lines 41-46).

12. As per claim 9, Kemp II teaches the system of claim 1 as described above.

Kemp II further teaches wherein said system server has a central database relevant to the system (see column 4, lines 41-46).

13. As per claim 10, Kemp II teaches the system of claim 1 as described above.

Kemp II further teaches wherein a selected security for which said trading data is displayed at any instant in time may be changed to another selected security by said

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software at each trader's location, at intervals selected by that trader (see column 9, lines 37-39).

14. As per claim 11, Kemp II teaches the system of claim 1 as described above. Kemp II further teaches wherein the trading data for any selected security for which the securities data is being displayed at any instant in time by any trader is constantly updated by being refreshed having regard to new trading data being received by the graphical user interface for that selected security (see column 5, lines 29-31).

15. As per claim 13, Kemp II teaches the system of claim 9 as described above. Kemp II further teaches wherein each market trading participant is chosen from the group consisting of stock brokers, approved electronic communication network trading systems (ECN's), stock exchanges, commodity exchanges, futures exchanges, bourses, and auction servers (see Figure 1, items 101-103 and column 4, lines 48-53).

16. As per claim 14, Kemp II teaches the system of claim 1 as described above. Kemp II further teaches wherein each selected security for which trading data is displayed is chosen from the group consisting of shares, commodities, futures, derivatives, puts, calls, and other share based options or contracts, and objects that are being sold at auction over internet-based auction systems (see column 1, lines 17-23 and column 3, lines 57-65)

17. As per claim 20, Kemp II teaches the system of claim 1 as described above. Kemp II further teaches wherein the software at any trader's graphical user interface is application software, which is contained in a computer at the respective trader's location (see column 1, lines 61-66).

18. Claim 12 rejected under 35 U.S.C. 102(b) as being anticipated by Hawkins, et al., U.S. Patent No. 6,029,146 (see attached PTO-892, Ref. B).

19. As per claim 12, Hawkins teaches wherein any backend system which is used by any market trading participant will perform at least the following tasks:

account management for each trading account being handled by that market trading participant (see column 10, lines 3-13 and 26-32);

processing trading orders for each transaction which that market trading participant undertakes to perform (see column 10, lines 3-13 and 26-32);

order execution, whereby each transaction which that market trading participant undertakes to perform, is executed (see column 10, lines 38-40);

data feed handling, whereby the data concerning any trading order being handled by that market trading participant for any selected security is fed to said system server for dissemination on request to any trader (see column 10, lines 3-13, 26-32 and 46-55); and

system management for purposes of maintaining security and operation of the respective backend system of that market trading participant (see column 12, lines 36-42).

***Claim Rejections - 35 USC § 103***

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. Claims 3 and 4 rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp, II et al., U.S. Patent No. 6,766,304 (see attached PTO-892, Ref. A) in view of a public use of the invention. Public use of the invention more than one year prior to Applicant's earliest priority date of June 28, 2001 is provided by Microsoft Excel 97 software (hereinafter Excel), as evidenced by Weisskopf, The ABCs of Excel 97, 1997, Sybex. (see attached PTO-892, Ref. U).

22. As per claim 3, Kemp II teaches the system of claim 1 as described above. Kemp II does not explicitly teach the system wherein an existing trading order display in a selected cell on said grid is electively changed by a trader by dragging the selected cell to a new location on said grid display; wherein said new location is linked to processor means that functions to alter a specific parameter associated with that trading order.

Excel teaches the system wherein an existing trading order display in a selected cell on said grid is electively changed by a trader by dragging the selected cell to a new location on said grid display (see pages 48-51); wherein said new location is linked to

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processor means that functions to alter a specific parameter associated with that trading order (see page 49, Note). Excel teaches the concept of drag and drop. It is a very easy way of moving or copying data from one cell to another cell in a spreadsheet or other Windows type of application. Drag and drop has wide spread usage in the art.

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kemp II and Excel to utilize drag and drop to move and copy cells because it could be a fast way of performing a task in Excel as taught by Excel (see page 48).

23. As per claim 4, Kemp II teaches the system of claim 3 as described above.

Kemp II further teaches wherein said selected cell and said new location are electively altered as to their graphical or visual attributes or properties (see column 5, lines 32-37 and column 6, lines 1-12); and

wherein said altered graphical or visual attributes or properties are chosen from the group of graphical or visual attributes or properties consisting of: color, border, label indicator, graphic overlay, text overlay, and combinations thereof (see column 5, lines 32-37 and column 6, lines 1-12).

24. Claim 15 rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp, II et al., U.S. Patent No. 6,766,304 (see attached PTO-892, Ref. A) in view of May, U.S. Patent No. 6,317,727 (see attached PTO-892, Ref. C).

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25. As per claim 15, Kemp II teaches the system of claim 1. Kemp II teaches wherein said data communications over said communications channels are in keeping with selected protocols which are established to standardize data interchange format between respective parties communicating over any respective communications channel (see column 4, lines 32-39). Kemp II does not explicitly teach using secure data encryption modes.

May teaches using secure data encryption modes (see column 11, lines 49-58, column 14, lines 62-67-column 15, lines 1-14 and column 48, lines 3-20).

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to have combined the teachings of Kemp II and May to use secure data encryption when sending and receiving messages because sensitive credit information and terms of trades is not to be shared and encryption would prevent unauthorized users from getting this information.

26. Claim 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp, II et al., U.S. Patent No. 6,766,304 (see attached PTO-892, Ref. A) in view of Hawkins, et al., U.S. Patent No. 6,029,146 (see attached PTO-892, Ref. B).

27. As per claim 16, Kemp II teaches the system of claim 9 as described above. Kemp II teaches the system wherein the backend system of any market trading participant further comprises a middleware system whose purposes include the following tasks: an application server to assure access by the backend system to

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required software in order to perform any required function intended to be carried out by that market trading participant (see column 4, lines 40-48). Kemp II does not explicitly teach the system wherein the backend system of any market trading participant further comprises a middleware system whose purposes include the following tasks: connection pooling, whereby securities data to and from that market trading participant is pooled and controlled so as to maintain the integrity thereof; and security management, whereby the security of the backend system against unwanted hacker intrusion is assured.

Hawkins teaches a system wherein the backend system of any market trading participant further comprises a middleware system whose purposes include the following tasks:

connection pooling, whereby securities data to and from that market trading participant is pooled and controlled so as to maintain the integrity thereof (see column 11, lines 19-22); and

security management, whereby the security of the backend system against unwanted hacker intrusion is assured (see column 12, lines 36-42).

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kemp II and Hawkins to pool securities data to maintain integrity and have security management on the network because pooling the securities together allows an investor's clearing agent to monitor the orders prior to execution to minimize financial risk and improve settlement rates as taught by Hawkins (see column 3, lines 42-45) and having password protection for the

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network would prevent unauthorized users from using the system as taught by Hawkins (see column 12, lines 36-42).

28. Claim 17-19 rejected under 35 U.S.C. 103(a) as being unpatentable over Kemp, II et al., U.S. Patent No. 6,766,304 (see attached PTO-892, Ref. A) in view of Millard et al., U.S. Patent Application Publication 2002/0007335 (see attached PTO-892, Ref. D).

29. As per claim 17, Kemp II teaches the system of claim 1 as described above. Kemp II does not explicitly teach wherein data concerning any security holding which is held by any trader is represented on the display for that respective trader by at least one icon which is linked to a respective GUI object in the software at that trader's graphical user interface.

Millard teaches wherein data concerning any security holding which is held by any trader is represented on the display for that respective trader by at least one icon which is linked to a respective GUI object in the software at that trader's graphical user interface (see Figures 15A and 15B, items 1512, 1514, 1520 and paragraph 320).

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kemp II and Millard to display an icon representing data for a security held by a trader linked to a GUI object because it allows the icons to be hyperlinked for different functions like selling or buying as taught by Millard (see paragraph 175).

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30. As per claim 18, Kemp II teaches the system of claim 1 as described above.

Kemp II does not explicitly teach wherein any selected quantity of cash which is held by any trader in selected units thereof is represented on the display for that respective trader by at least one icon which is linked to a respective GUI object in the software at that trader's graphical user interface.

Millard teaches wherein any selected quantity of cash which is held by any trader in selected units thereof is represented on the display for that respective trader by at least one icon which is linked to a respective GUI object in the software at that trader's graphical user interface (see Figure 15C, items 1570, 1580 and paragraphs 328-329).

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kemp II and Millard to display a selected quantity of cash which is held by any trader by at least one icon which is linked to a respective GUI object because it allows the icons to be hyperlinked for different functions like selling or buying as taught by Millard (see paragraph 175).

31. As per claim 19, Kemp II teaches the system of claim 14 as described above.

Kemp II does not explicitly teach wherein additional icons are used to represent specific quantities of units of any selected security, and additional icons are used to represent selected amounts of cash; and wherein, in each instance, each additional icon is linked to a respective further GUI object in the software at the trader's graphical user interface.

Millard teaches wherein additional icons are used to represent specific quantities of units of any selected security, and additional icons are used to represent selected

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amounts of cash (see Figure 15A, item 1512 and Figure 15B, items 1514 and 1520); and wherein, in each instance, each additional icon is linked to a respective further GUI object in the software at the trader's graphical user interface (see paragraph 320).

Therefore, it would have been prima facie obvious to one of ordinary skill in the art at the time of the invention to combine the teachings of Kemp II and Millard to use icons to represent units of a security and selected amounts of cash which are linked to a respective GUI object because it allows the icons to be hyperlinked for different functions like selling or buying as taught by Millard (see paragraph 175).

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### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahid R. Merchant whose telephone number is 571-270-1360. The examiner can normally be reached on First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Patrick Nolan can be reached on 571-272-0847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SRM

  
**MATTHEW S. GALT**  
PRIMARILY EXAMINER  
TECHNOLOGY CENTER 3800  
MAY 1 2010